REMARKS

Claims 1-72 are pending in this application.

The remarks presented herein are in response to the Non-Final Office Action dated July 29, 2005.

The Examiner rejected claims 1-72 under 35 U.S.C. §103(a) as being unpatentable over O'Connor et al. (5,638,499) in view of Bier (6,072,501) and further in view of Hamburg (6,028,583). This rejection is respectfully traversed.

Examiner fails to establish a prima facie case of obviousness of independent claims 1, 15, 29, 43, 57, 61, 65, and 69. To establish a prima facie case of obviousness, there must be some teaching, suggestion or motivation to modify a reference or to combine reference teachings. M.P.E.P. § 2143.01. In determining the differences between the prior art and the claims, the proper inquiry is "whether the claimed invention <u>as a whole</u> would have been obvious," and not merely "whether the differences <u>themselves</u> would have been obvious." M.P.E.P. § 2141.02. Under *Graham v. John Deere Co.*, 383 U.S. 1 (1966), objective evidence of commercial success and failure or others are secondary factors relevant to an obviousness inquiry. M.P.E.P. § 2141.

Independent claims 1, 15, 29, and 43 provide techniques for combining overlapping layers to render an image by defining a tile corresponding to a region of overlap among a set of layers. Pixels within a first portion of the image lying within the tile are processed distinctly from pixels in a second portion of

the image. By using tiling techniques, determinations as to which layers may contribute to output values need to be performed only at the tile level rather than repeatedly at the pixel level, thereby reducing the number of operations needed and allowing efficient image rendering. An image pixel in the defined tile is processed by selecting one or more of the overlapping layers and compositing the color values of layer pixels corresponding to the image pixel with an accumulator color value. Further, an accumulator opacity value for the image pixel is capable of compositing a fade value representing an overall opacity of a selected layer as well as an opacity value of a layer pixel corresponding to the image pixel.

Independent claims 57, 61, 65 and 69 provide techniques for subdividing tiles by subdividing a second layer along a straight line corresponding to an extension of an edge of a first layer, wherein at least one of the overlapping layers has a fade value representing layer-wide opacity.

None of the cited references of O'Connor, Bier and Hamburg, either alone or in combination, provides any teaching, suggestion or motivation to combine tiling techniques with layer-wide opacity values (fade values) as recited in independent claims 1, 15, 29, 43, 57, 61, 65, and 69. Tiling techniques of the present invention increase image rendering efficiency because all pixels in a tile can be processed similarly based on a given set of overlapping layers. This is particularly useful during the complex, time-intensive operation of combining multiple translucent layers. Combining tiling techniques with layer-wide opacity values

enables layer-wide operations on complex-shaped overlapping layers. Further, combining tiling with layer-wide opacity values facilitates effects such as fade out and translucent dragging of overlapping layers. For example, combining tiling techniques with fade values facilitates translucent dragging of operating system windows wherein window overlapping changes rapidly as a window is dragged across the screen.

Applicants agree with Examiner that O'Connor and Bier fail to disclose a fade value specifying layer-wide opacity. Moreover, neither Hamburg nor any other cited reference teaches or suggests combining tiling techniques of the present invention with layer-wide opacity values for overlapping layers. Objective evidence of non-obviousness is provided by the commercial success of features such as translucent dragging and fading of windows in Applicant's Macintosh Operating System. In a poll conducted by MacPolls.com and posted on May 17, 2004, a large majority of the more than 7700 respondents wanted Apple to support translucent windows. See http://www.macpolls.com/?poll_id=412. Further objective evidence of non-obviousness is provided by the failure of cited references to solve the problem of rendering complex-shaped and overlapping translucent layers. Therefore, the Examiner fails to establish a prima facie case that the claimed invention as a whole would have been obvious by combining O'Connor, Bier and Hamburg.

Claims 2-14, 16-28, 30-42, 44-56, 58-60, 62-64, 66-68, and 70-72 are variously dependent upon claims 1, 15, 29, 43, 57, 61, 65, and 69. Accordingly, Applicants respectfully submit that claims 1-72 are allowable over the prior art.

In particular, dependent claims 12, 26, 40 and 54 recite: "wherein each layer comprises a window, and wherein the image comprises a display for a windowing system." Dependent claims 12, 26, 40 and 54 apply the image rendering techniques of the independent claims to window-based operating systems. The present invention enables real-time rendering of overlapping, translucent windows by combining tiling techniques with efficient compositing of color and opacity values. Examiner alleges that these claims are obvious based on Figures 14, 15, 22 and 23 of O'Connor. However, the cited portion of O'Connor does not refer to operating system windows. Rather, Figure 23 of O'Connor merely illustrates a scene in which light passes through a hazy window, blue cellophane, and is reflected off a building. Moreover, none of the cited references teach or suggest combining the features of the independent claims, including tiling techniques as well as layer-wide opacity values, to render the displays of window-based operating systems. Therefore, none of the cited references, taken alone or in any combination, anticipates or makes obvious the inventions recited in dependent claims 12, 26, 40 and 54.

On the basis of the above arguments, consideration of this application and the early allowance of all claims herein is requested.

Should the Examiner wish to discuss the above amendments and remarks, or if the Examiner believes that for any reason direct contact with Applicants' representative would help to advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,
Ralph T. Brunner and
Peter Graffagnino

Dated: ___OCT 28/05___   By: _____
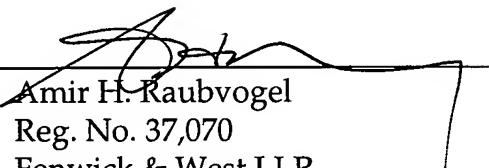
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